

### TAP Alternative Scopes of Work and Budgets Through Record of Decision Pines Alternative Superfund Site

#### **Introduction**

Geo-Hydro, Inc. (GHI) submitted in November 2010 a scope of work and budget estimate that detailed our estimate of effort required to review and understand, prepare written comments, and interpret and communicate with PINES and the community. This estimate was prepared based on direction from USEPA that it views PINES as a partner in the process and desires full participation of PINES in reviewing and commenting on the draft versions of produced documents. Our estimated budget, based on previous experience with reviewing similar documents from this and other sites, totaled to \$88,750.

On December 9, 2010 GHI received from PINES a copy of a letter from the Respondent's attorney. The letter emphasized that Respondents would not fund any portion of any budget beyond a total of \$50,000. Toward that end, the letter suggested our November budget might be reduced by refining our estimates of time necessary to review appendix materials. The letter also suggested that full participation in the process by PINES is not required and that reducing the level of participation to the review and presentation of only final documents might allow budget reduction toward the Respondent's \$50,000 limit.

At PINES' request, GHI reviewed its November scope of work and budget in the light of the Respondents' suggestions. Toward that end, and consistent with its understanding of the USEPA expectation that PINES again be fully involved in the process, GHI first refined its best estimate of time required to review appendices that are a significant part of the Human Health and Ecological Risk Assessments. Rather than estimating average assessment times for the appendices based upon individual sizes, GHI divided each the appendices into three categories, 1) Appendices requiring detailed review, 2) Appendices requiring cursory review, and 3) Appendices requiring no review. This refinement did reduce estimated budget by \$11,719. This reduced the budget to \$77,030 for a scope of work reflecting full PINES' participation in a manner consistent with GHI's professional experience of full participation.

The above exercise fails to meet the Respondents' cap of \$50,000. In an effort to keep the project moving forward and assist PINES with receiving additional TAP funding GHI has prepared two alternative scopes of work and associated estimated budgets. Each significantly modifies assumptions about the level of PINES' participation and involvement, and each modifies the nature of yet-to-be documents. Each also meets the Respondents' \$50,000 funding limit.

#### **Alternative 1 – Review of and Comment on Final Documents**

The first alternative Scope of Work and Budget Estimate has been revised from the original budget in the following manner:

- The estimated costs associated with each task assume that the deliverables submitted by the Respondents for review will be of sufficient quality and transparency that significant technical effort beyond review and written commenting is not required.
- GHI will review and understand, provide written comments, and interpret for PINES and the
  community only one version of each document. We assume that the initial versions of each
  document included in the previous estimate will be reviewed by USEPA and IDEM, but not
  PINES. Review on behalf of PINES will be conducted on the final version of each document
  after all modifications requested by USEPA and IDEM have been incorporated.

Effort required to review the documents on behalf of PINES is estimated to be generally consistent with the first document reviews that were included with the original estimate with the following exceptions;

- The rate of review of appendices thought to require cursory review has been increased to 20 pages per hour from the previous 12 pages per hour. Our ability to attain this review rate depends on the quality and transparency of the document, and in particular, the amount of time that must be spent combing appendices for pertinent information referenced in the main body of the document.
- The estimated numbers of pages included in the Feasibility Study document have been reduced to 400 pages, including 150 pages of appendices.

Details on the Scope of Work and Estimated Budget included under Alternative 1 are provided below.

#### **Alternative 1 - Scope of Work and Budget**

#### Task 1: PINES Expenses

Funding for PINES to organize and hold public meetings, produce and disseminate materials to update, inform and educate the public, including the use of mechanisms such as preparing and copying materials, holding public meetings, providing technical support at such meetings, and maintaining a website, will require an estimated \$5,000. The remainder of the authorization is expected to be available for technical support in the form of review of documents, preparing comments on documents, and explanation of significant findings and ramifications to the PINES group and public.

#### Task 2: Review and Comment on the Human Health Risk Assessment

Under the assumptions used to develop this alternative scope of work, GHI will not review drafts of the Human Health Risk Assessment (HHRA). We assume that the draft version(s) of this document will be reviewed by USEPA and IDEM. Review on behalf of PINES will be conducted on the final HHRA after modifications requested by USEPA and IDEM have been incorporated.

#### Task 3: Review and comment on the final Human Health Risk Assessment

The initial activity in this task will be to orient the project Toxicologist with a cursory review of previous project documentation including the Site Management Strategy document, the Remedial Investigation, and the Risk Assessment Workplan. The Toxicologist will then be briefed on project activities to date including the Remedial Investigation, its history and limitations; the aborted groundwater modeling effort and its implications, and other relevant project history.

The final HHRA will then be reviewed with respect to standard practices and assumptions. Comments provided to PINES will cover the approach, results, and conclusions of the document and its implications for the public. Some calculations will be spot-checked for accuracy. The second draft HHRA is composed of text, figures and tables, and appendices and it is assumed that subsequent versions will be of similar size and content. Our estimate of the effort required to review and comment on the final HHRA is summarized below.

Estimated Task 3 Budget - Review Final HHRA				
Task	Pages	Review Rate	Estimated Hours	Estimated Cost
Orient Toxicologist			32 hours	\$4,000.00
Review Text	142 pages	6 pages/hour	23.7 hours	\$2,962.50
Review Tables and Figures	181 pages	8 pages/hour	22.6 hours	\$2,825.00
Review Appendices (Detailed)	291 pages	6 pages/hour	48.5 hours	\$6,062.50
Review Appendices (Cursory)	736 pages	20 pages/hour	36.8 hours	\$4,600.00
Review Appendices (No Review)	96 pages	0 pages/hour	0 hours	\$0
Total Task Estimate			163.6 hours	\$20,450.00

Task 4: Review and comment on the draft Ecological Risk Assessment

Under the assumptions used to develop this alternative scope of work, GHI will not review this draft of the Ecological Risk Assessment (ERA). We assume that the initial version this document will be reviewed by USEPA, NPS, and IDEM. Review on behalf of PINES will be conducted on the final ERA after modifications requested by USEPA and IDEM have been incorporated.

#### Task 5: Review and comment on the final Ecological Risk Assessment

GHI will review the final Ecological Risk Assessment (ERA) with emphasis on exposure pathways, exposure assessment, risk characterization; and critical assumptions and uncertainties. Some calculations will be spot-checked for accuracy. Comments provided to PINES will cover the approach,

results, and conclusions of the document and its implications for the environment and the public. Our estimate of the effort required to review and comment on the final ERA is summarized below.

Estimated Task 5 Budget - Review Final ERA				
Document	Pages	Review Rate	Estimated Hours	Estimated Cost
Review Text	103 pages	6 pages/hour	17.2 hours	\$2,150.00
Review Tables and Figures	109 pages	8 pages/hour	13.6 hours	\$1,700.00
Review Appendices (Detailed)	38 pages	6 pages/hour	6.3 hours	\$787.50
Review Appendices (Cursory)	318 pages	20 pages/hour	15.9 hours	\$1,987.50
Review Appendices (No Review)	272 pages	0 pages/hour	0 hours	\$0
Total Task Estimate			53 hours	\$6,625.00

Task 6: Review and comment on draft versions Identification of Remedial Action Objectives Technical Memorandum

Under the assumptions used to develop this alternative scope of work, GHI will not review draft versions of the Identification of Remedial Action Objectives Technical Memorandum. We assume that the initial document will be reviewed by USEPA and IDEM. Review on behalf of PINES will be conducted on the final Identification of Remedial Action Objectives Technical Memorandum after modifications requested by USEPA and IDEM have been incorporated.

Task 7: Review and comment on the final Remedial Action Objectives Technical Memorandum GHI will review the final Identification of Remedial Action Objectives Technical Memorandum with emphasis on constituents of concern, exposure pathways and receptors, acceptable constituent levels, abatement of unacceptable current or future risks, and applicable or relevant and appropriate requirements. Comments provided to PINES will document issues with the approach, results, and conclusions of the document and its implications for the environment and public.

This document has not yet been prepared. GHI assumes for the purposes of this estimate that it will be 150 pages in length. Assuming a review and commenting rate of about 6 pages per hour on a new document, we estimate that document review and commenting will require approximately 25 hours or approximately \$3,125. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

Task 8: Review and comment on the draft versions of the Development and Screening of Alternatives Technical Memorandum

Under the assumptions used to develop this alternative scope of work, GHI will not review this draft of the Development and Screening of Alternatives Technical Memorandum. We assume that the draft versions of this document will be reviewed by USEPA and IDEM. Review on behalf of PINES will be conducted on the Development and Screening of Alternatives Technical Memorandum after modifications requested by USEPA and IDEM have been incorporated.

## Task 9: Review and comment on the final Development and Screening of Alternatives Technical Memorandum

GHI will review the final Development and Screening of Alternatives Technical Memorandum with emphasis on general response actions, areas and volume of CCW to which response actions apply, screening of remedial technologies, evaluation of alternative effectiveness, screening of alternatives in terms of implementability, and costs. GHI will also critically review rationale for eliminating alternatives that are not retained. Comments provided to PINES will document issues with the approach taken, technologies evaluated (retained and eliminated), assumptions used during screening, and alternative technologies that should be considered. The limitations and implications of the technologies retained for further evaluation and eliminated from further consideration will be explained to PINES for dissemination to the public.

This document has not yet been prepared. GHI assumes for the purposes of this estimate that it will be 150 pages in length. Assuming a review and commenting rate of about 6 pages per hour on a new document, we estimate that document review and commenting will require approximately 25 hours or approximately \$3,125. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

#### Task 10: Review and comment on the draft Feasibility Study

Under the assumptions used to develop this alternative scope of work, GHI will not review drafts of the Feasibility Study. We assume that the drafts of the document will be reviewed by USEPA and IDEM. Review on behalf of PINES will be conducted on the final Feasibility Study after modifications requested by USEPA and IDEM have been incorporated.

#### Task 11: Review and comment on the final Feasibility Study

The final Feasibility Study will be reviewed by GHI with special attention to the treatment of each of the nine required evaluation criteria. GHI will prepare comments, and discuss and explain the range of remedial options to PINES to help its members and the public understand the potential benefits, tradeoffs, and implications of the various options. Our estimate of the effort required to review and comment on the Feasibility Study is summarized below. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

Estimated Task 5 Budget - Review Final Draft Feasibility Study				
Document	Pages	Review Rate	Estimated Hours	Estimated Cost
Review Text	200 pages	6 pages/hour	33.3 hours	\$4,162.50
Review Tables and Figures	50 pages	8 pages/hour	6.3 hours	\$787.50
Review Appendices (Detailed)	100 pages	6 pages/hour	16.7 hours	\$2,087.50
Review Appendices (Cursory)	50 pages	20 pages/hour	2.5 hours	\$312.50
Total Task Estimate			58.8 hours	\$7,350.00

#### Task 12: Review and comment on the Proposed Plan

Under the assumptions used to develop this alternative scope of work, GHI will not review drafts of the Proposed Plan. We assume that the draft versions of the document will be reviewed by USEPA and IDEM. Review on behalf of PINES will be conducted on the second draft Proposed plan after modifications requested by USEPA and IDEM have been incorporated.

#### Task 13: Review and Comment on the final Proposed Plan

The final Proposed Plan will be reviewed for explanation to PINES. GHI will review and provide comments to PINES on the EPA's selected remedy and highlight the associated benefits and/or problems. GHI will discuss and explain the proposed plan to PINES, identifying potential implications for the environment and public. Assuming the document is on the order of 30 pages, we estimate that review and summarization of the final Proposed Plan and discussions of the plan with PINES will take approximately 3 days or \$3,000.

#### **Alternative 1 Budget Summary**

Task	Proposed Budget
Task 1: PINES Expenses	\$5,000
Task 2: Review and Comment on the drafts of the Human Health Risk Assessment	\$0
Task 3: Review and comment on the final Human Health Risk Assessment	\$20,450.00
Task 4: Review and comment on the drafts of the Ecological Risk Assessment	\$0
Task 5: Review and comment on the final Ecological Risk Assessment	\$6,625.00
Task 6: Review and comment on the drafts of the Identification of Remedial Action Objectives Technical Memorandum	\$0

Task 7: Review and comment on the final Remedial Action Objectives Technical Memorandum	\$3,125.00
Task 8: Review and comment on the drafts of the Development and Screening of Alternatives Technical Memorandum	\$0
Task 9: Review and comment on the final Development and Screening of Alternatives Technical Memorandum	\$3,125.00
Task 10: Review and comment on the drafts of the Feasibility Study	\$0
Task 11: Review and comment on the final Feasibility Study	\$7,350.00
Task 12: Review and comment on the drafts of the Proposed Plan	\$0
Task 13: Review and Comment on the final Proposed Plan	\$3,000
Total Estimated Alternative 1Budget	\$48,675.00

If a reviewed document is sufficiently clear and concise so that its review and preparation of comments does not require the entire budget for that item, the remainder will be available for use on subsequent document reviews. In the event that the size or construction of a reviewed document is such that additional budget is needed to complete the review, GHI will notify PINES of the deficiency and its causes so that authorization for additional funding from the respondents can be sought. GHI will not complete the review of an under-funded deliverable without authorization for additional effort and associated budget.

#### Alternative 2 – Adjust Major Assumptions regarding Documents to be Reviewed

The second alternative Scope of Work and associated Budget Estimate make the following major revisions to our November 2010 estimate:

- The estimated costs associated with each task assume that the deliverables submitted by the
  Respondents for review will be of sufficient quality and transparency that significant technical
  effort beyond review and written commenting is not required. GHI will review and understand,
  provide written comments and interpret for PINES and the community two versions of each
  document.
- GHI assumes that comments on the first version of the documents will require no changes to
  information or evaluations contained in the Appendices; therefore no review of appendix
  materials in second review documents is included in this estimate.
- The presented documents allow the rate of review of appendices (included in review of first version documents) to be increased to 20 pages per hour from the previous 12 pages per hour. Our ability to attain this review rate depends on the quality and transparency of the document.
- The assumed numbers of pages in the Identification of Remedial Action Objectives Technical Memorandum and Development and Screening of Alternatives Technical Memorandum have been decreased to 75 pages each.

- The estimated numbers of pages included in the draft and second draft Feasibility Study documents have been reduced to 300 pages, 150 of which are appendices.
- The presented documents allow the assumed time to review, comment, and interpret the draft and second draft Proposed plans to be reduced to 14 hours and 8 hours, respectively.

Details on the Scope of Work and Estimated Budget included under Alternative 2 are provided below.

#### Alternative 2 – Scope of Work and Budget

#### Task 1: PINES Operating Expenses

Funding for PINES to organize and hold public meetings, produce and disseminate materials to update, inform and educate the public, including the use of mechanisms such as preparing and copying materials, holding public meetings, providing technical support at such meetings, and maintaining a website, will require an estimated \$5,000. The remainder of the authorization can be expected to be available for technical support in the form of review of draft documents, preparing comments on draft documents, and explanation of significant findings and ramifications to the PINES group and public.

Task 2: Review and Comment on the second draft Human Health Risk Assessment

The initial activity in this task will be to orient the project Toxicologist with a cursory review of previous project documentation including the Site Management Strategy document, the Remedial Investigation, and the Risk Assessment Workplan. The Toxicologist will then be briefed on project activities to date including the Remedial Investigation, its history and limitations; the aborted groundwater modeling effort and its implications, and other relevant project history.

The second draft Human Health Risk Assessment (HHRA) will then be reviewed with respect to standard practices and assumptions. Comments provided to PINES will cover the approach, results, and conclusions of the document and its implications for the public. Some calculations will be spotchecked for accuracy. Our estimate of the effort required to review and comment on the second draft HHRA is summarized below.

Estimated Task 2 Budget - Review Second Draft HHRA					
Task	Pages	Review Rate	Estimated Hours	Estimated Cost	
Orient Toxicologist			32.0 hours	\$4,000.00	
Review Text	142 pages	6 pages/hour	23.7 hours	\$2,962.50	
Review Tables and Figures	181 pages	8 pages/hour	22.6 hours	\$2,825.00	
Review Appendices (Detailed)	291 pages	6 pages/hour	48.5 hours	\$6,062.50	

Review Appendices (Cursory)	736 pages	20 pages/hour	36.8 hours	\$4,600.00
Review Appendices (No Review)	96 pages	0 pages/hour	0 hours	\$0
Total Task Estimate			163.6 hours	\$20,450.00

Task 3: Review and comment on an assumed third draft of the Human Health Risk Assessment
The third draft HHR Assessment will primarily be reviewed to evaluate whether previous comments
have been appropriately incorporated into the document and to identify other substantive changes that
may have been made on the revised document. New calculations will be spot-checked for accuracy.
Comments provided to PINES will include comments on the previous version that are not
appropriately incorporated, new comments that come to light during this review, conclusions of the
document, and its implications for the public. In accordance with the assumptions used to develop this
alternative budget, this estimate assumes that the document will not have been significantly expanded
to incorporate comments on the previous version and that appendix materials will not have changed
from the previous version.

Estimated Task 3 Budget - Review Third Draft HHRA					
Document	Pages	Review Rate	Estimated Hours	Estimated Cost	
Review Text	142 pages	12 pages/hour	11.8 hours	\$1,475.00	
Review Tables and Figures	181 pages	16 pages/hour	11.3 hours	\$1,412.50	
Review Appendices (Detailed)	0 pages	6 pages/hour	0 hours	\$0	
Review Appendices (Cursory)	0 pages	24 pages/hour	0 hours	\$0	
Review Appendices (No Review)	0 pages	0 pages/hour	0 hours	\$0	
Total Task Estimate			23.1 hours	\$2,887.50	

Task 4: Review and comment on the draft Ecological Risk Assessment

GHI will review the draft Ecological Risk Assessment (ERA) with emphasis on exposure pathways, exposure assessment, risk characterization; and critical assumptions and uncertainties. Some calculations will be spot-checked for accuracy. Comments provided to PINES will cover the approach, results, and conclusions of the document and its implications for the environment and the public. Our estimate of the effort required to review and comment on the draft ERA is summarized below.

Estimated Task 4 Budget - Review Draft ERA					
Document	Pages	Review Rate	Estimated Hours	Estimated Cost	
Review Text	103 pages	6 pages/hour	17.2 hours	\$2,150.00	
Review Tables and Figures	109 pages	8 pages/hour	13.6 hours	\$1,700.00	
Review Appendices (Detailed)	38 pages	6 pages/hour	6.3 hours	\$787.50	
Review Appendices (Cursory)	318 pages	20 pages/hour	15.9 hours	\$1,987.50	
Review Appendices (No Review)	272 pages	0 pages/hour	0 hours	\$0	
Total Task Estimate			53 hours	\$6,625.00	

Task 5: Review and comment on the second draft Ecological Risk Assessment

The second draft ERA will primarily be reviewed to evaluate whether previous comments have been appropriately incorporated into the document and to identify other substantive changes that may have been made on the revised document. New calculations will be spot-checked for accuracy. Comments provided to PINES will include identification of comments on the previous version that are not appropriately incorporated, new comments that come to light during this review, conclusions of the document, and its implications for the environment and public. In accordance with the assumptions used to develop this alternative budget, this estimate assumes that the document will not have been significantly expanded to incorporate comments on the previous version and that appendix materials will not have changed from the previous version.

Estimated Task 5 Budget - Review Second Draft Eco Risk Assessment				
Document	Pages	Review Rate	Estimated Hours	Estimated Cost
Review Text	103 pages	12 pages/hour	8.6 hours	\$1,075.00
Review Tables and Figures	109 pages	16 pages/hour	6.8 hours	\$850.00
Review Appendices (Detailed)	0 pages	6 pages/hour	0 hours	\$0
Review Appendices (Cursory)	0 pages	24 pages/hour	0 hours	\$0
Review Appendices (No Review)	0 pages	0 pages/hour	0 hours	\$0
Total Task Estimate			15.4 hours	\$1,925.00

Task 6: Review and comment on the draft Identification of Remedial Action Objectives Technical Memorandum

GHI will review the draft Identification of Remedial Action Objectives Technical Memorandum with emphasis on constituents of concern, exposure pathways and receptors, acceptable constituent levels, abatement of unacceptable current or future risks, and applicable or relevant and appropriate requirements. Comments provided to PINES will document issues with the approach, results, and conclusions of the document and its implications for the environment and public.

GHI assumes that this document will be 75 pages in length. Assuming a review and commenting rate of about 6 pages per hour on a new document, we expect that document review and commenting will require approximately 12.5 hours, with a corresponding budget of approximately \$1,562.50. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

## Task 7: Review and comment on the second draft of the Remedial Action Objectives Technical Memorandum

The second draft Identification of Remedial Action Objectives Technical Memorandum will primarily be reviewed to evaluate whether previous comments have been appropriately incorporated into the document and perform a cursory review of the entire document to identify other changes that may have been made on the revised document. Comments provided to PINES will include identification of changes made to the previous document, identification of comments on the previous version that are not appropriately incorporated, conclusions of the document, and its implications for the environment and public.

Assuming the document is on the order of 75 pages long and a review and commenting rate of about 12 pages per hour on a re-issued document, we expect that document review and commenting will require approximately 6.3 hours with a corresponding budget of \$787.50. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

# Task 8: Review and comment on the draft Development and Screening of Alternatives Technical Memorandum

GHI will review the draft Development and Screening of Alternatives Technical Memorandum with emphasis on general response actions, areas and volume of CCW to which response actions apply, screening of remedial technologies, evaluation of alternative effectiveness, screening of alternatives in terms of implementability, and costs. GHI will also critically review rationale for eliminating alternatives that are not retained. Comments provided to PINES will document issues with the approach taken, technologies evaluated (retained and eliminated), assumptions used during screening, and alternative technologies that should be considered. The limitations and implications of the

technologies retained for further evaluation and eliminated from further consideration will be explained to PINES for dissemination to the public.

Assuming the document is on the order of 75 pages and a review and commenting rate of about 6 pages per hour on a new document, we expect that document review and commenting will require approximately 12.5 hours with a corresponding budget of \$1,562.50. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

## Task 9: Review and comment on the second draft Development and Screening of Alternatives Technical Memorandum

The second draft Development and Screening of Alternatives Technical Memorandum will primarily be reviewed to evaluate whether previous comments have been appropriately incorporated into the document and perform a cursory review of the entire document to identify other changes that may have been made on the revised document. Comments provided to PINES will include identification of comments on the previous version that are not appropriately incorporated, new comments that come to light during this review, conclusions of the document, and its implications for the environment and public. GHI will discuss and explain the conclusions of the document with PINES. PINES will then be in a position to inform the public through public meetings and/or other means about the remedial options under consideration.

Assuming the document is on the order of 75 pages long and a review and commenting rate of about 12 pages per hour on a re-issued document, we expect that document review and commenting will require approximately 6.3 hours with a corresponding budget of \$787.50. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

#### Task 10: Review and comment on the draft Feasibility Study

The draft Feasibility Study will be reviewed by GHI with special attention to the treatment of each of the nine required evaluation criteria. GHI will prepare comments, and discuss and explain the range of remedial options to PINES to help its members to understand the potential benefits, trade-offs, and implications of the various options. Our estimate of the effort required to review and comment on the draft Feasibility Study is summarized below. The scope of work and resulting effort may change depending on the size, quality, and transparency of the document that is actually produced.

Estimated Task 10 Budget - Review Draft Feasibility Study					
Document Pages Review Rate Estimated Hours Estimated Cost					
Review Text	100 pages	6 pages/hour	16.7 hours	\$2,087.50	
Review Tables and Figures	50 pages	8 pages/hour	6.3 hours	\$787.50	

Review Appendices (Detailed)	25 pages	6 pages/hour	4.2 hours	\$525.00
Review Appendices (Cursory)	125 pages	20 pages/hour	6.3 hours	\$787.50
Total Task Estimate			33.5 hours	\$4,187.50

Task 11: Review and comment on the second draft Feasibility Study

The second draft Feasibility Study will primarily be reviewed to evaluate whether previous comments have been appropriately incorporated into the document and perform a cursory review of the entire document to identify other changes that may have been made on the revised document. Comments provided to PINES will include identification of comments on the previous version that are not appropriately incorporated and new comments that come to light during this review. GHI will discuss and explain the conclusions of the document with PINES, and its implications for the environment and public. PINES will then be in a position to inform the public through public meetings and/or other means about the remedial options, collect public input on acceptance of the various options, and provide feedback about public acceptance to the agencies. Our estimate of the effort required to review and comment on the draft Feasibility Study is summarized below. In accordance with the assumptions used to develop this alternative budget, this estimate assumes that the document will not have been significantly expanded to incorporate comments on the previous version and that appendix materials will not have changed from the previous version.

Estimated Task 10 Budget - Review Second Draft Feasibility Study				
Document	Pages	Review Rate	Estimated Hours	Estimated Cost
Review Text	100 pages	6 pages/hour	8.3 hours	\$1,037.50
Review Tables and Figures	50 pages	8 pages/hour	3.1 hours	\$387.50
Review Appendices	0 pages	24 pages/hour	0 hours	\$0
Total Task Estimate			11.4 hours	\$1,425.00

Task 12: Review and comment on the draft Proposed Plan

The draft Proposed Plan will be reviewed for explanation to PINES. GHI will review and provide comments to PINES on the EPA's selected remedy and highlight the associated benefits and/or problems. GHI will discuss and explain the proposed plan to PINES, identifying potential implications for the environment and public. Assuming the document is on the order of 30 pages, we estimate that

review and summarization of the draft Proposed Plan, and discussions of the plan with PINES will take approximately 14 hours with a corresponding budget of \$1,750.00.

#### Task 13: Review and Comment on the second draft Proposed Plan

The second draft Proposed Plan will be reviewed by GHI for explanation to PINES. GHI will identify to PINES any comments on the draft document that are not appropriately incorporated in the second draft document. GHI will discuss and explain the conclusions of the document to PINES, and its implications for the environment and public. PINES will then be in a position to inform the public through public meetings and/or other means about the planned remediation. Assuming the document is on the order of 30 pages, we estimate that review and summarization of the second draft Proposed Plan will take approximately 8 hours with a corresponding budget of \$1,000.

#### **Alternative 2 Budget Summary**

Task	Proposed Budget
Task 1: PINES Expenses	\$5,000.00
Task 2: Review and Comment on the second draft Human Health Risk Assessment	\$20,450.00
Task 3: Review and comment on an assumed third draft of the Human Health Risk Assessment	\$2,887.50
Task 4: Review and comment on the draft Ecological Risk Assessment	\$6,625.00
Task 5: Review and comment on the second draft Ecological Risk Assessment	\$1,925.00
Task 6: Review and comment on the draft Identification of Remedial Action Objectives Technical Memorandum	\$1,562.50
Task 7: Review and comment on the second draft of the Remedial Action Objectives Technical Memorandum	\$787.50
Task 8: Review and comment on the draft Development and Screening of Alternatives Technical Memorandum	\$1,562.50
Task 9: Review and comment on the second draft Development and Screening of Alternatives Technical Memorandum	\$787.50
Task 10: Review and comment on the draft Feasibility Study	\$4,187.50
Task 11: Review and comment on the second draft Feasibility Study	\$1,425.00
Task 12: Review and comment on the draft Proposed Plan	\$1,750.00
Task 13: Review and Comment on the second draft Proposed Plan	\$1,000.00
Total Estimated Budget	\$49,950.00

If a reviewed document is sufficiently clear and concise so that its review and preparation of comments does not require the entire budget for that item, the remainder will be available for use on subsequent

document reviews. In the event that the size or construction of a reviewed document is such that additional budget is needed to complete the review, GHI will notify PINES of the deficiency and its causes so that authorization for additional funding from the respondents can be sought. GHI will not complete the review of an under-funded deliverable without authorization for additional effort and associated budget.